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THE CLINICAL CENTER
DIVISION OF RESEARCH GRANTS

May 28, 1956

Dr. Joshua Lederberg
University of Wisconsin
Department of Microbiology
Madison 6, Wisconsin

Dear Joshua,

I just talked to Bill McElroy, who has invited me to give a brief talk at this year's meeting on the Chemical Basis of Heredity.

We first talked about having me deliver our material on 'galactosemia' the first day after Beadle's lecture. However, it might be very difficult to fit in and that day will, according to Bill, be rather overstrained anyhow. I then told him about Kurahashi's work on the Lederberg strains. I managed to get Kiyoshi in as an attendant that day but he will probably not want to say anything. I have therefore planned to give a brief summary of this work with only a few passing remarks on human galactosemia. I will send you various editions of manuscripts for your criticism and hope that you will comment on these studies before or after (or both), my presentation which will probably only last 10 minutes. Let me hear your opinion and suggestions.

The latest results are most encouraging. As Kiyoshi will tell you, the Gal 2 minus strain contained PGal transferase but is devoid of galactokinase. I advised him to consolidate these interesting results by means of an independent method using C^{14} -labelled galactose compounds. Moreover, by making a 'hybrid' extract between Gal minus and Gal 2 minus, he should be able to have free galactose (C^{14}) end up in the uridine nucleotide. It might later be possible to undertake a study of 'incomplete' PGal uridyl transferase or galactokinase.

Hope to hear from you soon and to see you at Johns Hopkins.

Sincerely,

Herman M. Kalckar


HMK:Lh

See P.S.

P.S. Monday

The hybrid extracts worked beautifully. For instance PGal-less strain transferred only 250 counts into the nucleotide fraction, using C^{14} galactose and ATP and Gal kinase-less only 120 cts; the hybrid extract of both gave more than 6000 cts.!

It occurred to me that if you and Ester have not published your work on the recombination percentages of these galactose negative strains, especially the percentages of positives, that it might be particularly nice to have it come out together with Kiyoshi's article. For instance, your article first, followed by Kiyoshi's. He is writing it up. 'Science' might be a good place and Beadle would get it in fast. He got our galactosemia article in within 6 weeks. Let me know what you think of such a suggestion and especially, of course, whether you have submitted a paper on our gal-minus strains for publication.



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